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Name _____ Date _____

Practice: For use after Lesson 2.2, Algebra 2 with Trigonometry

Algebra 2
Unit #7
WS #2

Solving Inequalities

Solve and write the solution set using set-builder notation. Graph the solution set, if it is not the empty set.

1. $2x - 5 < 11$ _____
2. $3y - 1 > 14$ _____
3. $-4 - 6n \geq 32$ _____
4. $-2(3z + 1) \leq 22$ _____
5. $4(x - 2) + 6 < 42$ _____
6. $3(r - 1) + 2r > 12$ _____
7. $4y + 5y - 9 > 9$ _____
8. $7n + 10 \leq 3n + 50$ _____
9. $2(5 - 2x) \geq 2x - 20$ _____
10. $15 - 3(z + 4) < 63$ _____
11. $\frac{2}{5}(x - 15) < x - 12$ _____

Applications

12. **Personal Finance** Helen has $45 to buy videotapes. If each tape costs $5.50, what is the greatest number of videotapes she can buy? Assume that there is no sales tax. _____

MIXED PRACTICE

Solve for x.

13. $6x - 11 > 43$ _____
14. $15 - 2x = 17$ _____
15. $3(4 - x) + 1 \leq 19$ _____
16. $rx - t = v$ _____
17. $ax + d = bx + e$ _____
18. $5(x + 2) < 4x - 7$ _____